FIL050358

ECOLOGY AND ENVIRONMENT, INC.
FIELD INVESTIGATION TEAM
SITE INSPECTION PLAN

CONTACT: R.G. KEARNS
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TULSA, OK, 74101

A. GENERAL INFORMATION

SITE: WILLIAMS PIPE LINE COMPANY
LOCATION: 10601 FRANKLIN AVE.
FRANKLIN PARK, IL. 60131
COOK COUNTY
PLAN PREPARED BY: T-WOLFF
APPROVED BY:

TDD NO.: F05-8612-83
U.S. EPA NO.: ILD000673053
SSID NO.:
WSIS NO.: FIL0503
DATE:
DATE:

OBJECTIVE (including description of work to be performed): ON SITE INSPECTION AND INTERVIEW WITH SITE CONTACTS/ REPRESENTATIVES.

DESIRED REPORT FORM: SI REPORT (2070-13) ✓ HRS REPORT
OTHER (EXPLAIN)
PROPOSED DATE OF INVESTIGATION:

BACKGROUND REVIEW: Complete: ✓ Preliminary:

HRS PRELIMINARY SCORE OF ROUTES: (NO FIELD WORK) GW 10.88 SW 1.96 AIR 0
DIRECT CONTACT 62.50 FIRE AND EXPLOSION 0
TOTAL PRELIMINARY HRS SCORE VALUE (NO FIELD WORK) 6.39

PROJECTED HRS SCORE: (WITH FIELD WORK) GW 10.88 SW 1.96 AIR 0
DIRECT CONTACT 62.50 FIRE AND EXPLOSION 0
TOTAL PROJECTED HRS SCORE 6.39

IF NO SAMPLING, EXPLAIN ON PAGE 3. WITH AN OBSERVED RELEASE TO GROUNDWATER = SCORE 23.62

INSPECTION PRIORITY (BASED ON PROJECTED HRS SCORE): LOW: ✓ MEDIUM: HIGH:

B. SITE/WASTE CHARACTERISTICS

WASTE TYPE(S): Liquid Solid Sludge ✓ Gas
CHARACTERISTIC(S): Corrosive Ignitable ✓ Radioactive Volatile ✓
Toxic ✓ Reactive Unknown Other (Name)

FACILITY DESCRIPTION: WILLIAMS PIPE LINE CO. IS A COMMON CARRIER FOR REFINED PETROLEUM PRODUCTS. PETROLEUM IS RECEIVED VIA PIPELINE AND STORED IN TANKS. FROM 1935-1979, LEADED TANK BOTTOMS WERE CLEANED FROM TANKS AND BURIED.

Principal Disposal Method (type and location): SHALLOW TRENCHES WERE DUG, AND SLUDGE WAS BURIED WITH THE BACKFILLED EXCAVATED SOIL.

Unusual Features (dike integrity, power lines, terrain, etc.): TRENCHES WERE SITED WITHIN THE TANK DIKE WHICH WAS OPENED FOR DISCHARGE INTO ADJACENT SILVER CREEK (NPDES).

Status: (active, inactive, unknown) FACILITY IS STILL ACTIVE; HOWEVER, BURIAL OF PETROLEUM SLUDGE WAS CEASED IN 1979.

History: (worker or non-worker injury; complaints from public; previous agency action):

1974 - WATER AND GASOLINE WERE DRAINED OFF A STORAGE TANK AND FRANKLIN PARK POLICE RESPONDED TO CITIZENS' COMPLAINTS.

1980 - CITED BY IEPA FOR FAILURE TO RESUBMIT PERMIT FOR CONVERSION OF TWO FUEL OIL TANKS TO GASOLINE STORAGE TANKS.

1985 - OPERATED AN UNAUTHORIZED NPDES DISCHARGE. MSD ASKED FOR DISCHARGE TO BE DISCONNECTED PENDING FURTHER ACTION.

C. HAZARD EVALUATION

(Use Hazard Evaluation of Chemicals sheets for specific or representative chemicals present.):

LEADED TANK BOTTOMS

Pb - TOXICITY 3, PERSISTENCE 3

HIGH CHAIN HYDROCARBONS

LEVEL OF PROTECTION: A ___ B ___ C ___ D ✓

MODIFICATIONS: Level D with possible upgrade to Level C if surveillance equipment readings are 1-5 ppm above background. Readings > 5 ppm indicate abandoning the site and contracting RSC.

SITE SAFETY PLAN ON FILE AT E & E: YES ___ NO ✓

D. FIELD WORK REQUIRED

PERIMETER ESTABLISHMENT: MAP/SKETCH ATTACHED? YES ___ NO ✓

Perimeter Identified? YES ___ NO ✓

Zone(s) of Contamination Identified? YES ___ NO ✓

Geophysical Work: YES ___ NO ✓

Type: Magnetometry ___ Seismic Refraction ___ GPR ___ Resistivity ___ Other___

Comments: ___

Drilling: YES ___ NO ✓

Well Location Identified: YES ___ NO ___

Drill Plan/Well Installation Plan Attached: YES ___ NO ___

Sampling Required: YES ___ NO ✓

Type: GW ___ SW ___ Air ___ Soil ___ Waste ___ Other ___

Sampling Locations Identified: YES ___ NO ___

SUMMARY OF SAMPLING PROCEDURES: (Special Equipment, Facilities, or Procedures)

AT PRESENT, NO SAMPLING IS ANTICIPATED. (SEE COMMENTS)

E. ANALYTICAL SERVICES REQUIRED

RAS ___ SAS ___ CRL ___

F. QAPP

REQUIRED: YES ___ NO ✓

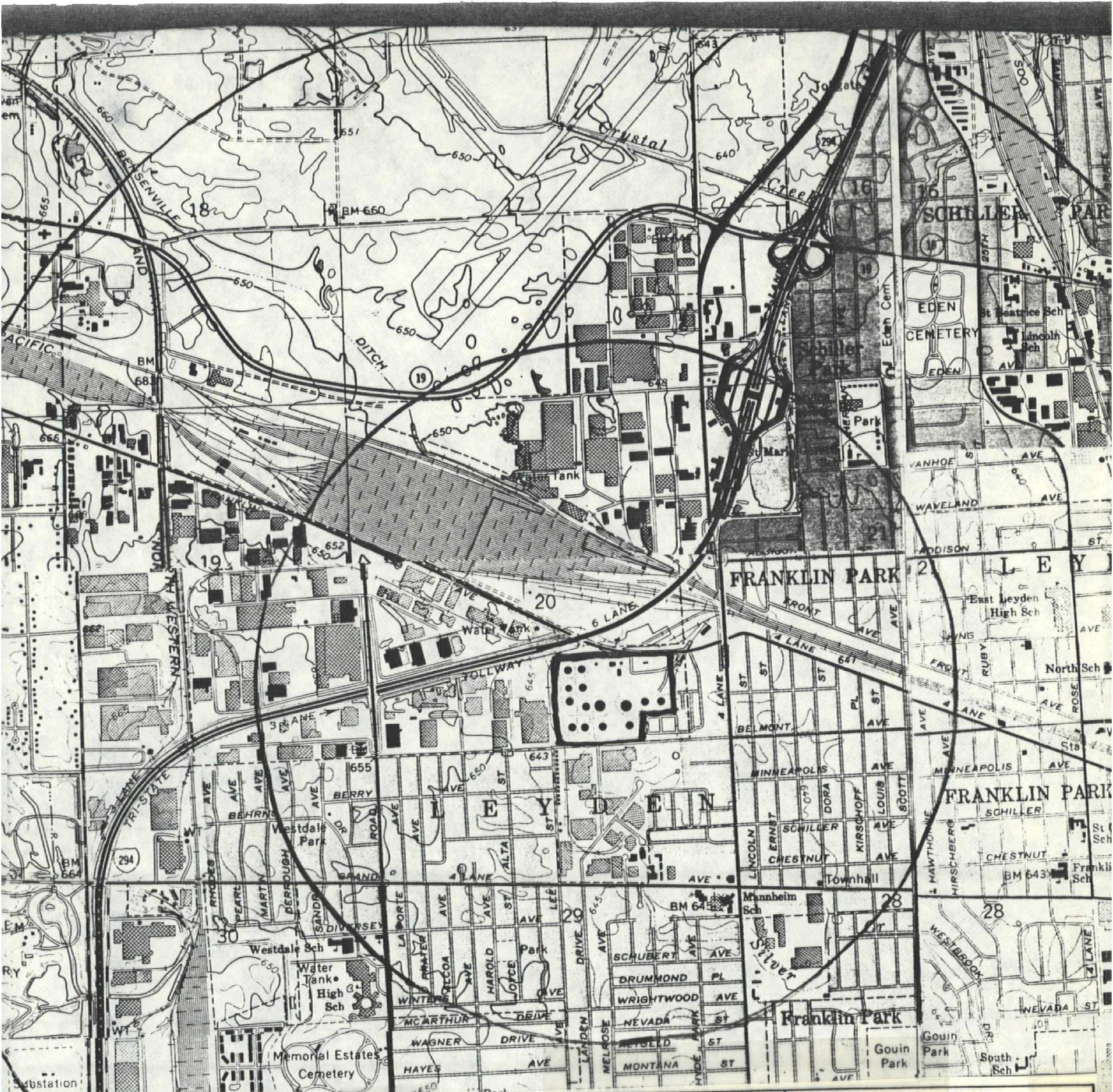
IF NO, EXPLAIN: NO SAMPLES ARE TO BE COLLECTED

G. SI WORK TEAM SIZE/LIMITATION

TEAM MEMBER	DISCIPLINE	RESPONSIBILITY
D. Curnock	Agronomist/Biologist	Team Leader / Site Safety Officer
T. Wolff	Ecologist	Team Member

WORK LIMITATIONS (Time of day, etc.): WORK TO BE PERFORMED DURING DAYLIGHT HOURS ONLY, AND CONSTANT MONITORING SHALL BE CONDUCTED FOR HEAT & COLD STRESS.

COMMENTS: SEE ATTACHED COMMENTS.



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REFERENCE

SITE NAME Williams Pipeline

SITE ID ILD000673653

USGS TOPOGRAPHIC MAPS:

NAME	ELMHURST, IL	NAME	River Forest, IL.
DATE	1963	DATE	1963
REVISED	1972, 1980	REVISED	1972
NAME		NAME	
DATE		DATE	
REVISED		REVISED	

SCALE

0 ½ 1 MILE

ILLINOIS

QUADRANGLE LOCATION

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

M E M O R A N D U M

DATE: February 4, 1987

TO: File

FROM: Ruth Ann Jacquette RAJ

SUBJECT: Illinois/F05-8612-083/IL0503
Franklin Park/Williams Pipe Line Company
ILD000673053

According to file information, the Williams Pipe Line Company acts as a common carrier for refined petroleum products. Materials are shipped via pipeline to the facility's tank distributing manifold where they are pumped to one of approximately 14 above ground storage tanks. The product is later transferred to tanker trucks for distribution. Any spills resulting from loading drain into a recovery system and oil/water separator. The separator then discharges to Silver Creek. This outfall is permitted by N.P.D.E.S. The Williams Pipe Line Company does not own the refined products, but acts as a transfer and storage agent for other companies.

On August 18, 1980, the Williams Pipe Line Company submitted a RCRA Part A permit to operate as a generator. According to the U.S. EPA CERCLA Notification of Hazardous Waste 103(c) dated June 5, 1981, 2600 gallons of leaded tank bottoms (K052) were disposed of onsite. Tanks are cleaned on a ten year frequency. A hole was excavated near the tank and the sludge spread out and covered with soil. Each time a tank was cleaned the sludge was buried in a different area. Leaded tank bottoms were used to complete the preliminary HRS score based on potential releases.

The potential score for groundwater and surface water routes is (S_M) 6.39. An observed release to groundwater (potential surface water) yields an HRS score of (S_M) 23.62. An observed release to surface water (potential groundwater) yields an HRS score of (S_M) 6.74, and an observed release to both routes yields a score of (S_M) 23.72.

In order to get an observed release to groundwater, which would significantly raise the overall HRS score (S_M 23.62), monitoring wells would have to be installed. The site is approximately 48 acres and numerous wells would be needed in order to attribute contaminants to the site. Also, the exact locations of the disposal trenches are unknown. Resource costs would be high to achieve an observed release to groundwater.

The Village of Bensenville is the only community within the 3-mile radius that obtains drinking water from groundwater wells, the remaining population is supplied by Lake Michigan water via Chicago. The Village of Bensenville population 16,700, is serviced by 4 wells which draw from approximately 1400 feet to 1900 feet. The Maquoketa Formation overlies the aquifer of concern and acts as a confining layer. One of the wells is located 2.5 miles west of the site and the other 3 wells are located outside of the 3-mile radius. All of the water is blended within the distribution system in such a manner that any one well could be shut off and the remaining wells would adequately service the entire population.

PRE-HRS

(IL 0503)

USEPA ID: ILD000673053

Facility name: WILLIAMS PIPE LINE COMPANY

Location: 10601 FRANKLIN AVE., FRANKLIN PARK, IL. 60131, COOK CO.

FACILITY DESCRIPTION THE WILLIAMS PIPE LINE COMPANY IS A COMMON CARRIER FOR REFINED PETROLEUM PRODUCTS LOCATED IN FRANKLIN PARK, IL. AND COOK COUNTY. AT THE FACILITY, MATERIALS ARE RECEIVED VIA PIPELINE AND PUMPED INTO TANKS FOR LATER TRANSFER TO TANKER TRUCKS. FROM THE YEARS 1935 TO 1979, THE 15 PETROLEUM STORAGE TANKS WERE CLEANED OF THEIR 55-165 GALLONS OF SLUDGE. ON A FREQUENCY OF TEN YEARS, THE SLUDGE WAS REMOVED AND BURIED IN A SHALLOW EXCAVATED TRENCH AND BACKFILLED WITH THE EXCAVATED SOIL. DIFFERENT TRENCHES WERE USED FOR EACH CLEANING AND WERE LOCATED WITHIN THE TANK DIKE WHICH MAY BE OPENED FOR NPDES STORM WATER DISCHARGE. WILLIAMS PIPELINE COMPANY IS A PERMITTED RCRA GENERATOR, AND IT HAS A HISTORY OF PETROLEUM PRODUCT SPILLS.

POTENTIAL SW + GW	OBS. RELEASE SW + GW
Scores: S_M = 6.34 (S_{gw} = 10.88 S_{sw} = 1.96 S_a = 0)	S_M = 23.72 (S_{gw} = 40.92 S_{sw} = 4.20 S_a = 0)
S_{FE} =	S_{FE} =
S_{DC} = 62.50	S_{DC} = 62.50
Potential SW OBS. RELEASE GW	**Potential GW** OBS RELEASE SW
S_M = 23.62 (S_{gw} = 40.82 S_{sw} = 1.96 S_a = 0)	S_M = 6.74 (S_{gw} = 10.88 S_{sw} = 4.20 S_a = 0)
S_{FE}	S_{FE} =
S_{DC} 62.50	S_{DC} = 62.50

N.B. 1) SLUDGE TRENCH IS NOT NOTED TO BE LINED

2) CAP ON TRENCH?

3) DIKES SURROUNDING FACILITY?

PRE-HRS
WORKSHEET
-GW & SW

Groundwater Route

Depth to aquifer of concern	1400'	(0)
Net precipitation	33.57 - 30.00 = 3.57"	(1)
Perneability (material type)	CLAY	(0)
Physical state	SLUDGE	(3)
Containment (type, degree)	NO LINER / WITH PONDING	(3)
Toxicity; persistence (compounds)	LEADED SLUDGE (ALBA KOS2) 3,3	(18)
quantity	55gal x 15 tanks = 9075gal / 50 = 181.5 drums (55 - 165 gal/tank)	(2)
Groundwater use	DRINKING WATER (BENSENVILLE)	(2)
Population served	16,700	(5)
Nearest well	2.5 miles (1)	(20)

Surface Water Route

Slope and terrain	slope ≤ 3%, terrain ≤ 3%	(0)
24 hr rainfall	2.38"	(2)
Nearest Surface water	1.25 miles	(1)
Physical state	Sludge	(3)
Containment (type, degree)	INSUFFICIENTLY COVERED LANDFILL W/OPEN DIKES	(3)
Toxicity; persistence (compounds)	LEADED SLUDGE	(18)
quantity	181.5 DRUMS	(2)
Surface water use	INDUSTRIAL	(1)
Sensitive environment	NONE	
Intake distance		
Population served		

NOT FOR DRINKING WATER

05T:2T

	S	S^2
Groundwater Route Score (S_{gw})	10.88	118.37
Surface Water Route Score (S_{sw})	1.96	3.84
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		122.21
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		11.05
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}/1.73 = S_M$		6.39

OBSERVED RELEASE

	S	S^2
Groundwater Route Score (S_{gw})	40.82	1666.27
Surface Water Route Score (S_{sw})	4.20	17.64
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1683.91
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		41.04
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}/1.73 = S_M$		23.72

OBSERVED RELEASE GW ONLY

	S	S^2
Groundwater Route Score (S_{gw})	40.82	1666.27
Surface Water Route Score (S_{sw})	1.96	3.84
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1670.11
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		40.87
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}/1.73 = S_M$		23.62

OBSERVED RELEASE SW ONLY

	S	S^2
Groundwater Route Score (S_{gw})	10.88	118.37
Surface Water Route Score (S_{sw})	4.20	17.64
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		136.01
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		11.66
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}/1.73 = S_M$		6.74

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	Obs. RELEASE
1 Observed Release	0 45	1	0	45	3.1	45
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.						
2 Route Characteristics					3.2	
Depth to Aquifer of Concern	(0) 1 2 3	2	0	6		
Net Precipitation	0 (1) 2 3	1	1	3		
Permeability of the Unsaturated Zone	(0) 1 2 3	1	0	3		
Physical State	0 1 2 (3)	1	3	3		
Total Route Characteristics Score			4	15		
3 Containment	0 1 2 (3)	1	3	3	3.3	
4 Waste Characteristics					3.4	
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18		
Hazardous Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8		
Total Waste Characteristics Score			20	26		20
5 Targets					3.5	
Ground Water Use	0 1 (2) 3	3	6	9		
Distance to Nearest Well/Population Served	0 3 6 8 10 / 12 16 18 (20) / 24 30 32 35 40	1	20	40		
Total Targets Score			26	49.		26
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			6240	57,330		2340
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} = 10.88				40.82

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet							
Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. (Section)	OBS. RELEASE
1 Observed Release	0	45	1	0	45	4.1	45
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2							
2 Route Characteristics						4.2	
Facility Slope and Intervening Terrain	(0) 1 2 3		1	0	3		
1-yr. 24-hr. Rainfall	0 1 (2) 3		1	2	3		
Distance to Nearest Surface Water	0 (1) 2 3		2	2	6		
Physical State	0 1 2 (3)		1	3	3		
Total Route Characteristics Score				7	15		
3 Containment	0 1 2 (3)		1	3	3	4.3	
4 Waste Characteristics						4.4	
Toxicity/Persistence	0 3 6 9 12 15 (18)		1	18	18		
Hazardous Waste Quantity	0 1 (2) 3 4 5 6 7 8		1	2	8		
Total Waste Characteristics Score				20	26		20
5 Targets						4.5	
Surface Water Use	0 (1) 2 3		3	3	9		
Distance to a Sensitive Environment	(0) 1 2 3		2	0	6		
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40		1	0	40		
Total Targets Score				3	55		3
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				1.96	64,350		2700
7 Divide line 6 by 64,350 and multiply by 100			S_{SW} = 1.96				4.20

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
[1] Observed Release	(0) 45	1	(0)	45	5.1
Date and Location:					
Sampling Protocol:					
If line [1] is 0, the S_a = 0. Enter on line [5]. If line [1] is 45, then proceed to line [2].					
[2] Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
[3] Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
[4] Multiply [1] x [2] x [3]			(0)	35,100	
[5] Divide line [4] by 35,100 and multiply by 100		S_a =			

FIGURE 9
AIR ROUTE WORK SHEET

Fire and Explosion Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100			S_{FE} =		

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	OBS. RELEASE
1 Observed Incident	(0) 45	1	0	45	8.1	45
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	0 1 2 (3)	1	3	3	8.2	
3 Containment	0 (15)	1	15	15	8.3	
4 Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4	15
5 Targets					8.5	
Population Within a 1-Mile Radius	0 1 2 3 4 (5)	4	20	20		
Distance to a Critical Habitat	(0) 1 2 3	4	0	12		
Total Targets Score			20	32		20
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			13500	21,600		13500
7 Divide line 6 by 21,600 and multiply by 100	S_{DC} = 62.50					62.50

FIGURE 12
DIRECT CONTACT WORK SHEET